

REMARKS

Claims 12-22 are pending in this application, of which claim 16 has been amended. No new matter has been added.

Claims 16 and 20 stand rejected under 35 U.S.C. §102(b) as anticipated by WO02/061443 to McQuade et al. (hereafter "**McQuade et al.**").

Applicants respectfully traverse this rejection.

McQuade et al. discloses a probe head assembly (66) for use in a vertical pin probing device of the type used to electrically test integrated circuit devices having a metallic spacer (74, 76) portion formed from a plurality of laminated metallic layers (74a-74e, 76a-76e). The laminated metallic layers (74a-74e, 76a-76e) are formed from a low coefficient of thermal expansion metal, such as Invar, a 36% nickel-64% iron alloy. By orienting the metallic grains of the laminated metal layers (74a-74e, 76a-76e) to be off-set from the orientation of metallic grains of adjacent foil layers (74a-74e, 76a-76e), increased strength and flatness is achieved.

The Examiner fails to identify the to-be-contacted member, and FIG. 2 showing "Prior Art" shows the only element which could be identified as such, which is integrated circuit 14 having pads 14a. Page 5, line 18 discloses that the coefficient of thermal expansion (CTE) of the silicon wafer (the integrated circuit,) is $2.8 \times 10^{-6} \text{ m/m/}^\circ\text{K}$, while the CTE of dielectric sheets 56, 58 (corresponding to the holder hole forming unit set of the instant application) is $3.4 \times 10^{-6} \text{ m/m/}^\circ\text{K}$ and the CTE of the spacer members 74, 76 (corresponding to the supporting member of the instant application) is not disclosed. Therefore, **McQuade et al.** fails to disclose that "any one of the supporting member and the holder hole forming unit has a coefficient of linear expansion higher than that of the to-be-contacted member, while the other has a coefficient of linear expansion lower than that of the to-be-contacted member, as recited in claim 16 of the instant application.

Thus, the 35 U.S.C. §102(b) rejection should be withdrawn.

Claims 12-14, 18, 21 and 22 stand rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent 6,337,572 to Kazama (hereafter "**Kazama**").

Applicants respectfully traverse this rejection.

Kazama discloses an electric contact probe unit using a perforated plate member as a holder member, the holder member is made of material having a low coefficient of thermal expansion so that, even when used in a high temperature environment, the thermal expansion of the holder member can be minimized so that the positional accuracy of the electric contact probe units can be ensured without creating cumulative errors between those located remote from each other. When the holder member consists of a plurality of laminated thin plate members 10a to 10f, because the perforation of then plate members can be accomplished by etching, the production process is suited for mass production.

No CTE differences are disclosed for thin plate members 10a to 10f, and **Kazama**, therefore, fails to disclose adjacent supporting frames having higher and lower CTE's, respectively, than the to-be-contacted members, as recited in claims 12 and 18 of the instant application.

Regarding claims 21-22, the Examiner urges that element 9 corresponds to the holder hole forming unit set 9 of the instant application.

Applicants respectfully disagree. Element 9 is merely an insulating film formed on the inner circumferential surface of holder hole 4, and is formed using one of various kinds of deposition methods. Therefore, the insulating film cannot be considered to be substantial enough to form holder holes within it, as recited in claim 21.

Thus, the 35 U.S.C. §102(e) rejection should be withdrawn.

Claims 12, 14-18 and 20 stand rejected under 35 U.S.C. §102(b) as anticipated by JP 2002-139513 to Kazama (hereafter "**JP '513**").

Applicants respectfully traverse this rejection.

JP '513 discloses a conductive needle-like body 3 and a coil spring 4 provided in a holder hole 2 made in a support body 1. A pin 9 is protruded from a circuit board 5 having a terminal 5a in contact with the coil spring 4, the support body 1 is held in a displaceable manner by a through-hole 10 made in the support body and the pin, and the conductive needle-like body is brought into contact with an electrode 6a of a wafer 6 for inspection. Both members can be positioned without being integrated with each other by adhesive or the like, and can be easily separated during the maintenance, and a conductive contact can be easily exchanged, and a plate-like body can be easily repaired.

JP '513 is in Japanese and the English Abstract provided fails to disclose anything about coefficients of thermal expansion, as recited in claims 12, 14-18 and 20 of the instant application.

Thus, the 35 U.S.C. §102(b) rejection should be withdrawn.

Claims 13 and 19 stand rejected under 35 U.S.C. §103(a) as unpatentable over **Kazama** in view of JP 8-5664 (hereafter "**JP '664**").

Applicants respectfully traverse this rejection.

As noted above, **Kazama** fails to disclose CTE differences.

JP '664 discloses an inspection bond for products of a semiconductor device which employs invar and copper for main structural member in order to match the coefficient of thermal expansion with an IC wafer and a protrusion 2, serving as a terminal for allowing contact with an object to be inspected, is provided on the surface circuit 5. The production method comprises a step for laminating a three layer metal foil 6 of copper layer 63 for circuit/intermediate layer 62 of nickel or nickel alloy/cooper layer 61 for providing a protrusion, an insulating material responsible for adhesion, and a clad plate 8 composed copper layer 81/invar layer 82/cooper layer 81 by hot press such that the copper layer 63 for circuit and the clad plate 8 touches the insulating material 7.

Neither of the references teaches, mentions or suggests comparing CTE's of the supporting frame layer with that of the to-be-contacted member, as recited in claims 12 and 18, from which claims 13 and 19 respectively depend.

Thus, the 35 U.S.C. §103(a) rejection should be withdrawn.

In view of the aforementioned amendments and accompanying remarks, claims 12-22, as amended, are in condition for allowance, which action, at an early date, is respectfully solicited.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105.

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Respectfully submitted,

By 

William L. Brooks

Registration No.: 34,129
EDWARDS ANGELL PALMER & DODGE
LLP
1875 Eye Street, NW
Washington, DC 20006
(202) 478-7376
Attorneys/Agents For Applicant